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# Soil and Water Conservation News

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## **Comments:**

### **From the SCS Chief**

## **Conservation Education—An Investment in the Future**

We're all working hard to conserve our natural resources today. But what about tomorrow? Who will pick up where we leave off? What can we do now to help conserve and improve natural resources in the future?

One thing we can do is teach the children. Soon, they'll be deciding how the land and its products will be used. We must help open their eyes—and their minds—to the need to protect natural resources for themselves, for their children, and for the Nation.

We do this through conservation education. This is a process of helping people develop an awareness and knowledge of our natural world. Conservation education is not just for children. Everyone can learn.

Soil Conservation Service employees are helping the National Science Teachers Association; the National Association of Biology Teachers; and many other education, youth, and civic groups to include soil and water conservation in their curricula and programs. By exhibiting educational materials at national, regional, and statewide meetings of educators, we reach thousands of teachers, curriculum developers, and program managers. Meeting teachers on their own turf is a good way to tell our story—and to be sure it will keep being told.

The time you spend working with teachers and students, organizations, youth leaders, and others in your area is an investment that pays off. Share your knowledge and experience with them. Get them involved in resource activities, and they will pay you back many times over with their support and hard work. The investment of your time will help extend the stewardship of our vital natural resources. The rewards will be well worth the effort.



**Cover:** The 1986 Conservation Education National Teacher-of-the-Year, Frances Dellinger, of Lincolnton, N.C., keeps her Rock Springs School sixth grade students busy with conservation activities. Dellinger and other conservation education winners are featured on page 3. (Photo by Ron Nichols, photographer, SCS, Washington, DC.)



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## Conservation Education Award Winners



National Teacher-of-the-Year Frances Dellinger leads her class through the Rock Springs School's nature trail in Denver, N.C. The trail, developed by Dellinger and the students, provides an ideal outdoor classroom for conservation education and gives students hands-on experience with conservation techniques.

Photo by Ron Nichols, photographer, SCS, Washington, DC.

**T**he National Association of Conservation Districts (NACD) and the Duetz-Allis Corp. have announced the winners in the 1986 National Conservation Education Awards Program. NACD and the Duetz-Allis Corp. cosponsor the annual contest to recognize teachers and conservation districts for outstanding conservation education programs. The national and regional winners will receive the awards at the annual NACD convention in Reno, Nev., February 1-3, 1987.

First place national teacher-of-the-year is Frances Dellinger, a sixth grade teacher at the Rock Springs School in Denver, N.C. For the past 2 years, Dellinger's students have worked on developing a nature trail on the school ground. With assistance from conservation specialists, the students identified and labeled plant species, planted new plants and shrubs, and guided hundreds of other students through their unique outdoor learning lab.

First place national conservation district-of-the-year is the Hinds County Soil and Water Conservation District, Jackson, Miss. The district developed a conservation carnival that carried the conservation message to more than 3,000 students. Volunteers, dressed as clowns, led each class through six study stops staffed by cooperating agency specialists. The carnival was held at the 140-acre environmental study area operated by the Jackson public schools. The district has been invited to stage the event there again next year.

Second place national teacher-of-the-year is Roxanne Brickell, a sixth grade teacher at Acres Green Elementary School in Littleton, Colo. Using a \$500 grant, she and her students worked with SCS, the conservation district, and others on an outdoor conservation project titled, "Project Trail Scape." The project spruced up the school's exercise trail and provided learning experiences that included out-of-class research, decisionmaking, experiments, and case study investigations surrounding soils and their uses.

Second place national district-of-the-year is the Monroe County Conservation District, Stroudsburg, Pa. The Meesing Nature Center has become a focal point of the district's educational program. The district-owned site has been developed as an outdoor classroom with 4 miles of trails, individual study stations, a pond, a wildlife blind, and a maple sugar bush operation. The district's two full-time naturalists have designed youth and adult education programs that have reached nearly 10,000 people since their current program began in 1978.

Top regional winners from each of NACD's seven regions have been named. Successful ideas from the top national and regional winners will be published in a booklet that will be made available to all conservation districts.

The national first place teacher will receive \$1,000 and an expense paid trip to the NACD convention in Reno, Nev. The national second place teacher will receive a cash award of \$500. The national first and second place districts will each receive a plaque at the NACD convention. In addition, the national first place district will receive up to \$500 to help with the expense of sending a representative to the NACD convention. Each of the regional teacher and district winners will receive \$200 and an award plaque.

The conservation education awards program is open to all full-time classroom teachers in grades K-12 and to all conservation districts. Questions about the program should be addressed to the program coordinator, Malcolm Crooks, NACD, Box 297, Solebury, Pa. 18963; telephone (215) 297-5676.

**Ronald G. Francis,**

director of communications, National Association of Conservation Districts, League City, Tex



# Carnival Proves A Winner

**A** conservation carnival helped the Hinds County, Miss., Soil and Water Conservation District (SWCD) to take first place in the 1986 National Conservation Education Awards Program sponsored by the National Association of Conservation Districts and the Duetz-Allis Corp.

Last year, for the second year in a row, the district sponsored a carnival to teach children about natural resource conservation. Hinds County SWCD Information Specialist Lynn Porter coordinated the event. The carnival, which was held for 4 days in May at the 140-acre environmental study site in Jackson, was attended by nearly 3,000 children.

"These students come from both urban and rural environments," said Larry Golden, district conservationist for the Soil Conservation Service in the county. "The exposure to conservation and agriculture that they receive through the carnival is priceless. For some, it may be their only glimpse of what those involved in agriculture know to be our most important industry."

The carnival was designed for the students to learn about conservation and agriculture and have fun in the process. There were balloons, a magician, and a

group of clowns. The clowns—played by volunteers and employees of SCS—entertained the children and escorted them along a conservation trail to study stops where resource specialists demonstrated soil and water conservation principles. Stops covered wildlife, farming, soils, water resources, farm animals, forestry, and conservation farming techniques.

The trail began with a trip to the wildlife stop, where Harvey Huffstatter, an SCS biologist, fascinated the students with his imitations of turkey, barred owl, and other wildlife calls. The students saw several species of wildlife displayed by the Mississippi Wildlife Federation and learned how they can improve wildlife habitats in their own backyards.

Next was the farm stop, where the students were greeted by James Parkman, SCS agronomist. Here they saw soil conservation practices such as mulching, grassed waterways, contour farming, and conservation tillage.

Earl Nail, a retired SCS soil conservationist, showed the youngsters a soil profile at the soils exhibit. The youngsters also assisted with runoff boxes that demonstrated how plant cover reduces soil loss.

The students saw water turtles, crawfish, bass, bream, catfish, and alligator gar at the aquatic biology display. Officials from the Mississippi Museum of Natural Science and the Mississippi Department of Wildlife Conservation explained how different species of aquatic life are adapted to their habitats.

At the farm animal stop, sponsored by the Mississippi Cooperative Extension Service, the students fed the animals and learned how horses, cows, chickens, and ducks depend on the soil for survival. Several 4-H youths volunteered their animals and time to make this a favorite stop.

Smokey the Bear and workers from the Mississippi Forestry Commission were on hand at the forestry stop. They demonstrated woodland conservation practices and displayed forestry products.

The last two stops covered water resource conservation and were coordinated by the U.S. Army Corps of Engineers and the Vicksburg District. Students learned about Mississippi's water resources and saw a working model of the Mississippi River Basin.

**Jeannine May,**  
area public affairs specialist, SCS, Jackson, Miss.

The Hinds County, Miss., Soil and Water Conservation District sponsors a conservation carnival to teach children about resource conservation. Here the children see how plant cover protects soil from erosion. At left, Larry Chatmon, SCS soil conservation technician, sprinkles water to simulate rainfall on bare soil while Earl Nail, retired SCS soil conservationist, sprinkles water on the soil protected by vegetation.



# Learning Outdoors

**O**n Wednesday, it rained 4 inches in Cashion, Okla., adding to the 12 inches that fell during the 2 weeks before that. On Thursday, 25 elementary school students slipped plastic bags over their shoes and went to their 10 a.m. class in their school's outdoor classroom.

"It's a little muddy, but that's no reason not to go outdoors," said Pam Deering, special education teacher at the area's small rural school. "In fact, the students found some interesting things like mushrooms, mold, and insects that hadn't been there in dry weather."

The triangular-shaped outdoor classroom is located in a corner of the school ground and is slightly over an acre in size. It is enclosed by a chain link fence and has a small pond, trails made of landscaping timbers and wood chips, and a variety of trees and grasses. Soil removed when digging the pond was used to build up the landscape along the south side of the area to add diversity to the flat school ground.

The idea for the outdoor area came from Cashion Elementary School Superintendent Larry Mays, who had been involved in an outdoor classroom at another school. Principal Jack Moery also strongly supports the project.

"Developing the outdoor classroom has really been a cooperative effort among the school, State and Federal agencies, businesses, and individuals," said Jim Stover, Kingfisher County Conservation District manager. Stover helped the school get the project started by helping to develop a plan for the area. Jack Miller, a Soil Conservation Service soil conservationist in the county, made recommendations on the pond, trees, and grass cover and provided soils information. Parents helped to install fencing and plant some of the larger trees.

The conservation district received a \$500 grant from the Oklahoma Department of Wildlife Conservation for the school to use for developing wildlife habitat areas. The grant came from the Department's nongame program, which has provided funds to several schools across the State. Money for the grants comes from a tax checkoff program that enables citizens to donate part of their tax refund to the nongame program. The Wildlife Department has also provided the school with booklets on attracting birds and helped with wildlife conservation programs and projects.

A local nursery donated some of the

trees planted by the students, and the Oklahoma Forestry Division donated others. The Forestry Division also supervised planting of the trees. The conservation district helped the school purchase a drip watering system for the trees at a discount. SCS designed the drip system and helped to install it.

The National Weather Service donated a weather station. A man who lives next to the school ground helped to develop the outdoor classroom and volunteered the use of his yard and vegetable garden for additional study areas.

The outdoor classroom is providing hundreds of activities for the students. They're developing a native grass plot with assistance from SCS and the conservation district, building bird feeders in shop class, making rock collections, and planting more trees and shrubs.

School administrators say that many more additions to the outdoor learning area are planned. "Outdoor classrooms can be a lot of work," said Moery, "but what the kids can learn in them is just great."

**F. Dwain Phillips,**  
public affairs specialist, SCS, Stillwater, Okla



In the outdoor classroom at Cashion Elementary School in Cashion, Okla., SCS Soil Conservationist Jackie Miller, at left, Pam Deering, a teacher at the school, and one of the students look for the plants and insects that can be found in wet soils.



# Ag in the Classroom

Ag in the Classroom is a grassroots program coordinated by the U.S. Department of Agriculture. Its goal is to help students gain a greater awareness of the role of agriculture in the economy and society, so that they may become citizens who support wise agricultural policies.

The program is carried out in each State, according to State needs and interests, by individuals representing farm organizations, agribusiness, education, and government.

USDA supports the State groups by helping to develop Ag in the Classroom programs, acting as a central clearinghouse for materials and information, encouraging USDA agencies to assist in the State programs, and coordinating with national organizations to promote the goal of an increased awareness of agriculture among the Nation's students.

## Agriculture Goes to Class

**T**he Ag in the Classroom Program in Nebraska is going great! Teachers are not only learning the best ways to help students become aware of agriculture as the source of their food and fiber, but also receiving the tools they need to do it.

The main thrust of the Nebraska program revolves around two summer workshops, called Creative Agricultural Activities in the Classroom, held at the University of Nebraska at Lincoln and Omaha, and at Kearney State College. Teachers gain first-hand knowledge of the agricultural cycle while they earn 3 hours of graduate credit.

Also, during the workshop, teachers learn about the many teaching guides, workbooks, films, and other materials available on agriculture and the natural resources that sustain it. One publication presented is *Conserving Soil*, a Soil Conservation Service publication for use in grades 6-9. At the workshop, resource people from SCS, the Cooperative Extension Service, and commodity groups including wheat, dairy, poultry, beef, and pork present demonstrations and experiments that teachers can do themselves or ask the represented agencies to help them with. Drawing on what they learn, teachers then develop instructional units to use in their classrooms.

The workshop includes a 4-day tour of working farms and ranches where teachers learn about day-to-day operations and lend a hand with chores. The teachers look at everything from conservation and production to research, processing, and distribution.

Throughout the school term, Nebraska's Ag in the Classroom program continues to provide inservice sessions, help with curriculum development, and explain the program to future teachers in teacher colleges.

In June 1986, a new Learning Activities Notebook developed under the State's Ag in the Classroom program became available. It is being used in the classrooms of





all teachers who participated in the teacher workshops during the past three summers. The notebook contains 22 folders of activities on Nebraska farm products. The activities are designed to help teachers and students appreciate and understand agriculture and its role in our economy and society. Teachers choose activities to integrate into their existing curriculums from the folders, which contain the following:

- Suggested grade level for the activity.
- Background information pertaining to the activity.
- Resource addresses to obtain more information related to the activity.
- Suggested ways to use the materials.
- Additional projects to reinforce or supplement the activity.
- Reproducible worksheets and activity sheets for student use.
- Answer keys for easy and immediate student feedback.

The activities are intended as a springboard to get the students excited and enthusiastic about learning the source of their food and fiber. Three of the activities, "Do You Need Soil?," "The Living Soil," and "Getting to the Core," are designed to help students understand that all living things need soil, especially people, to produce the things they need.

In the first lesson, students play the roles of trees, birds, insects, and other living things. The teacher asks them to act out what would happen to them if the soil disappeared. In the second lesson, students inspect a soil sample to find some of the creatures—earthworms, ants, snails, spiders, mites, and others—that live there. The third lesson on soil demonstrates how little of the earth's surface is actually suitable for producing food.

Another lesson is called "Seeds, Seeds, Seeds," in which students learn to categorize seeds into three groups—grains, fruits/vegetables, and flowers—and identify five different crops produced in Nebraska.

A slide/tape presentation for elementary schools on agriculture in Nebraska is planned. The presentation will emphasize the variety of agricultural products produced in the State. Copies will be available for loan to all Nebraska schools.

The Nebraska Ag in the Classroom Program is a cooperative effort of the Nebraska Department of Agriculture, Nebraska Department of Education, and the Institute of Agriculture and Natural Resources at the University of Nebraska—Lincoln. For more information on Nebraska's Ag in the Classroom write to Box 310A, Lincoln, Nebr. 68583-0709.

**Ellen Hellerich,**  
Ag in the Classroom coordinator, Lincoln, Nebr.

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## Down on the Farm

**O**ne day last spring, in highly urban Salt Lake County, Utah, 400 students from four elementary schools visited a working farm to learn where food and clothing come from. They were participating in the county's first "Ag Field Day" sponsored by the county's Ag in the Classroom committee.

Stations had been set up where students could see how milk is taken from a cow and put into a holding tank; how wheat is grown and made into bread; how chicken eggs develop and go to market; how sheep are sheared for their wool and the wool spun into yarn; and how vegetation can protect soil from erosion. Future Farmers of America (FFA) members from two local high schools led the children through the stations.

To give the children a taste of the final product from a dairy operation, members of the Salt Lake Farm Bureau Women gave the children ice cream bars provided by the Utah Dairy Council. The Utah State University Cooperative Extension Service, the Utah Woolgrowers' Association, and

the Salt Lake Soil Conservation District also cooperated in the field day.

With technical assistance from the Soil Conservation Service, the conservation district presented a soil pit to show the elementary students a soil profile and to tell them about the different soil layers, emphasizing how important the first layer, topsoil, is to crop production. The district also set up soil erosion boxes to show how vegetation can hold the soil in place when water hits it, but bare, unprotected soil is washed away. Another part of the soil conservation station was an exhibit entitled, "Food from Soil to Table."

The county's Ag in the Classroom committee videotaped the field day, held at the dairy farm of Dale Bateman, director of the Southwest Region for the National Association of Conservation Districts, to help promote the event which they plan to sponsor again next year for many more schools.

**William D. Robinson,**  
Salt Lake Soil Conservation District, Midvale, Utah

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# Girl Scouts Catch the Spirit!

**M**ix 2,500 Girl Scouts, a hands-on environmental learning experience, and 16 enthusiastic Soil Conservation Service employees, and you have a formula for getting people excited about conservation.

But SCS employees wanted to do more than that last summer at the Girl Scouts Jubilee Roundup at Farragut State Park in northern Idaho. In addition to teaching the Girl Scouts about the environment, they wanted to emphasize that gender makes no difference when it comes to conserving natural resources.

The Scouts, ages 12-18, came from eight Western States, British Columbia, Alberta, and Japan to participate in the Roundup and celebrate the 75th anniversary of scouting. The SCS employees came from California, Montana, Oregon, Utah, and Washington State to help staff an environmental education exhibit prepared by the Idaho State office of SCS.

The SCS exhibit entitled "Catch the Spirit! Conserve Soil and Water!" was one of the most popular at the Roundup. In all, more than half of the Scouts and their leaders went through the SCS exhibit, which featured a trail that led to demonstration areas.

The first three stops on the trail explained the components of soil, how it is formed, and the fact that there are many different kinds of soil. Six soil monoliths from across the United States—representing typical prairie, desert, and woodland soils—were used to show differences in soil characteristics and topsoil depths.

For example, the very deep topsoil layer of a Palouse silt loam prairie soil from Washington contrasted sharply to an eroded Norfolk loamy fine sand woodland soil from Georgia. Landscape photos were displayed to show different land uses on the soils. Many of the Scouts recognized soils similar to those where they live.

At the next stop, the SCS staff helped the Scouts and their leaders to build their own miniature soil profiles by filling 6-inch plastic tubes with representative layers of bedrock, parent material, subsoil, and topsoil. This activity prompted the Scouts to ask many questions about soils. The completed profiles illustrate what they learned and are lasting reminders that soil is a precious resource that must be used and cared for wisely.

The Scouts then moved to the soil runoff boxes, an activity simulating rainstorms over bare soil, soil covered with mulch, and soil with a grass cover. Obvious differences in the clarity of the runoff demonstrated one of the basic rules of soil conservation—grass protects the soil against the impact of raindrops and the movement of running water.

The next stop on the trail dealt with how snow surveys are made and used in the West, where 75 percent of the water comes from melting snow. A model snow survey site, complete with a miniature landscape and a working snow pillow (a sensing device for measuring and transmitting snowfall data), demonstrated the space age technology used by SCS to collect snow survey data and forecast runoff. This first-of-its-kind model was designed and created by the SCS snow survey staff in the Idaho State office.

At the last stop, the Scouts examined some of the tools used in the field by soil scientists, including a clinometer, level and rod, and soil auger. Most of the Scouts were fascinated when they looked through a stereoscope at a pair of aerial photos and saw a three-dimensional view of the landscape pop out at them.

Upon completion of the trail, the Scouts signed a specially designed Conservation Pledge based on the theme of the exhibit. The SCS staff encouraged the Scouts to keep the spirit of conservation and to frame their pledges when they returned home as a reminder of the important work to be done in soil and water conservation.

Many of the Girl Scouts asked about the prospects of conservation work as a profession. The SCS staff gave them encouragement and career brochures. Since more than half of the SCS staff at the roundup were women, the Scouts could easily see that there are lots of opportunities with SCS. And, judging by the keen interest expressed by many of the Girl Scouts at the Roundup, it's easy to think of tomorrow's conservationists as coming from their ranks.

Farragut State Park, where the Roundup was held, is about 28 miles north of Coeur d'Alene and borders Lake Pend Orielle, the largest lake in Idaho. The park was the site of the National Girl Scout Senior Roundup in 1965, the Boy Scouts World Jamboree in 1969, and the 1973 National Boy Scout Jamboree.

**Sharon Norris,**  
public affairs specialist, SCS, Boise, Idaho





# Class Acts

## From the Mountains to the Sea

Where can a high school student go to learn about the natural resources of South Carolina? Up in the Piedmont part of the State? Down in the coastal areas?

The answer is both. In an effort to provide selected students with a complete picture of this diverse State, South Carolina's conservation districts help sponsor two annual workshops, a couple hundred miles apart.

The first workshop—the Conservation Workshop for Youth—is held every June at Clemson University in the northwest corner of the State. This location is on the eastern slopes of the Appalachian Mountains. Each of the State's 46 conservation districts usually sends two students to attend this week-long study of soil, water quality, forestry, mining and minerals, and wildlife management. The teaching staff comes from the university, the South Carolina Land Resource Conservation Commission, and the Soil Conservation Service.

In the fall, 34 of the students in the first workshop are chosen to attend a 2½-day

Coastal Environmental Workshop at the Barrier Island Environmental Education Center on John's Island, about 25 miles south of Charleston. John's Island is one of a string of barrier islands attached by road to the mainland along the Atlantic coast. Here the students study the seafood industry, beach and dune formation and erosion, maritime forestry, and the chemistry of fresh water and sea water. Staff is provided by the center, a private, not-for-profit organization that supports environmental education.

The districts use different methods of selecting students to attend, depending on the number of applicants. Students are chosen for their academic abilities, interest in agriculture, standing in the community, and interest in the district.

Armed with the knowledge gained from these two workshops, the students return to the conservation districts and work to promote conservation. In so doing, they become eligible to compete for a statewide \$1,000 college scholarship.

**Neil Bartley,**  
conservation specialist, South Carolina Land Resource  
Conservation Commission, Edgefield, S.C.

## New Curriculum Rule for Minnesota Schools

"Our interest," said John Miller, environmental education specialist with the Minnesota Department of Education, "is not to teach children what to think about environmental issues, but how to think about them—to gather the facts, consider the effects, make the choices, and solve the problems. There are no easy answers, but there can be intelligent choices."

Beginning with the current school year, Minnesota is requiring all of its public and private schools to teach environmental education. The requirement is part of a new curriculum rule passed by the State Board of Education in 1985.

"We've had a lot of environmental education in Minnesota, but it's been scattered," said Miller. "Now we're part of the educational family."

The new rule requires the teaching of 10 subjects: language, math, art, music, science, social studies, physical education, health, environmental education, and media and technology. The last two, environmental education and media and technology, are to be integrated within the other subjects.

"This integration is important," said Miller, "because there has been a tendency to treat environmental education as an extension of the natural sciences. Now we teach it along with the other subjects, not just as a natural science. Students are taught how the environment relates to humans, how it sometimes requires the making of choices, and how environmental problems can be solved."

Each school district in Minnesota is responsible for establishing its own environmental education curriculum. The State provides assistance to schools by identifying appropriate resources and curriculum planning strategies. Each public school program is then monitored to ensure coordinated scope and sequence, evaluation, and review.

High school students wade into the surf to catch marine specimens for study at the Coastal Environmental Workshop at the Barrier Island Environmental Education Center on John's Island, S.C.



## Learning on the Land

A group of vocational agriculture students and 4-H members in Montana had a chance to develop a range management plan to solve real problems on a working ranch last summer.

With assistance from the Treasure County Conservation District (CD) and a local Future Farmers of America chapter, John Pfister, a vocational agriculture instructor in Hysham, Mont., organized the county's first range camp for youth. The 3-day range conservation camp was held on the ranch of Earl and Claraibel Bonine.

Soil Conservation Service staff from Forsyth, Mont., led sessions on range plants and soils; range sites, condition, and use; and range management.

Sessions included discussions and demonstrations on how soils form and how they differ in texture and structure and how this relates to the kind of vegetation an area can support. Being outdoors made it easier for students to see and feel the range plants being discussed and to see and feel the differences among soils. At a soil pit, campers were asked to determine the depth of different soil layers and to determine the soil texture.

Range management practices such as rotational grazing and vegetation improvement were discussed, and campers learned how to estimate the recommended stocking rate for an area and determine its use by livestock.

In the evening of the second day of camp, the students had a chance to apply what they had learned about range management to a real-life situation. The Bonines met with the campers and described their ranching operation to them. The Bonines told the campers about problems they were having with under utilization of some rangeland areas and overuse of others. Campers then split up into small groups to work on developing a range management plan to be presented to the Bonines.

The range plans that the campers developed reflected strong understanding

and knowledge of range management techniques. Their recommendations included fencing, rotational grazing, and vegetation improvement—many of the same practices already in the Bonine's long-term conservation plan.

On the third and last day of the range camp, students competed in a four-part contest that included identifying plants, naming plant parts, determining range use, and identifying three range sites and their condition and estimating the recommended stocking rate. Plaques were presented to the highest scorer with the most rangeland experience and the highest scorer with the least experience.

The first local range conservation camp was so successful that Pfister says another is planned for this year.

**Tammy Muller,**  
soil conservationist, SCS, Forsyth, Mont.

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## Sharing Ideas

The National Association of Conservation Districts' Idea Bank has been open for business for nearly a year and is full of hundreds of ideas that can help make district conservation education programs successful.

One of the ideas comes from the Harrison County Conservation District in Kentucky, which is offering mini-grants up to \$75 to 10 area teachers who propose innovative and original conservation education projects.

The Ocean County Soil Conservation District in New Jersey has submitted its idea to develop a farmland preservation theme for its annual bumper sticker contest for grade school children who live in largely urban areas.

Education Coordinator Art Greenberg welcomes deposits or withdrawals from the Idea Bank. Write to the NACD Idea Bank, 1025 Vermont Ave., NW., Room 730, Washington, DC. 20005.

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## Little Tree Planters, Big Tree Finders

They were planning for the future, but living in the present.

Several groups of third graders in Hamilton County, N.Y., observed Arbor Day last year in two ways. First, they planted tree seeds—an activity that is impossible to do without thinking about the future. Then they scattered out in the here-and-now to see who could find the biggest tree growing in the county.

These activities were organized in six local schools by Laura Harmount, manager of the Hamilton County Soil and Water Conservation District. Harmount spent 2 days last April visiting the schools to explain the history of Arbor Day and the importance of trees to humans and wildlife. She showed the third graders how to plant thornless honeylocust tree seeds she had obtained from the National Arbor Day Foundation and then invited them to participate in a "Biggest Tree Contest."

According to the contest rules, the students could search for the biggest tree as far as their parents would allow. The winner would be the child who found the tree with the largest circumference.

About 60 students participated. They found big trees, measured their circumferences, and reported the locations of the trees to their teachers. After the biggest entries were verified by Harmount, the winner at each school was awarded a certificate. Overall winner was Christie Rust, who received a certificate and a ribbon for finding a white pine tree in Pine Orchard, Town of Wells, that measured 18 feet and 4 inches in circumference.

But those who didn't win will have another chance. For this year's Arbor Day, Harmount plans to visit the same students, who are now in the fourth grade. She will award a prize for the best seedling to grow from the thornless honeylocust seeds planted last year.

**Jean Krebs,**  
information assistant, SCS, Syracuse, N.Y.

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## Nature Camp Attracts Kentucky Teachers

Education has a civilizing influence. Yet sometimes getting away from civilization can be an educational experience.

For the past 8 summers, Kentucky teachers have had an opportunity to spend a weekend in the woods, learning about nature far from the distractions of civilization. About 240 elementary and secondary school teachers in the State have attended a weekend workshop to learn new ways of teaching environmental awareness and resource conservation.

The workshop is sponsored by the Kentucky Departments of Education, Forestry, and Conservation; Morehead State University; the University of Kentucky; and the U.S. Department of Agriculture's Forest Service and Soil Conservation Service. It is held at a camp in the Robinson Forest, a remote, mountainous area in southeastern Kentucky managed by the University of Kentucky for teaching and research. The camp is used mainly for training foresters.

For many of the teachers, the weekend in the woods is a new experience. Most have never been camping or backpacking and have spent little time outdoors. Those who bring blow dryers, hot combs, and other accoutrements of civilization are relieved to find they have access to electrical outlets. Dormitory-style cabins are available for 30 teachers, but more can attend if they bring tents.

The teachers arrive at the workshop on a Friday in July. After lunch in the mess hall, they are divided into three groups to investigate the different ecosystems presented in the Investigating Your Environment materials of the Forest Service. The groups rotate until all have had an opportunity to observe, make inferences, predict outcomes, and draw conclusions from the soil, forest, and water activities in the material. Sessions are conducted by specialists from the Kentucky Department of Education, Morehead State University, the Forest Service, and SCS.

After the evening meal on Friday, the teachers see a slide show on the wildflowers of Kentucky. They also learn how they can develop outdoor classrooms at their schools to support and improve existing curriculum programs. Free environmental education materials are provided by State and Federal resource agencies.

On Saturday, the teachers continue with more Investigating Your Environment sessions and are introduced to Project WILD, an interdisciplinary, supplementary environmental and conservation education program that is being used in many States. Project WILD has developed a collection of wildlife activities to captivate and motivate children in grades K-12 to learn about the environment. These activities are published as curriculum guides that can also be used to teach basic skills. The teachers at the workshop participate in several Project WILD activities and learn how they can use the Project WILD guides in their own classrooms. Individual copies of the guides are provided by the Kentucky Department of Fish and Wildlife Resources.

Saturday night the teachers play different roles in a game simulating a land-use question facing the citizens of a fictional city. This portion of the workshop always generates a lot of excitement as the characters played by the teachers represent their respective interest groups in a development proposal for a hypothetical tract of land. Heated as the issue may get, however, it's all in fun. The evening usually ends with a sing-along and entertainment by assorted guitar or banjo players within the group.

After breakfast on Sunday, the teachers discuss the events of the weekend and share ideas. Although some may have come to the workshop fearing snakes, bugs, bears and other creatures, most leave with a positive attitude about environmental education and a commitment to try to incorporate some of the concepts they have learned into their own school programs.

The workshop is promoted several ways. Word-of-mouth from teachers who have attended previous workshops usually ac-

counts for a lot of participation. A Department of Education newsletter to all teachers in the State carries an article about the workshop each year encouraging teachers to call for details. The department also publishes a brochure with a tear-off registration form that is distributed to schools by soil conservation districts.

Several conservation districts each year pay for two teachers to attend the workshop. The cost of the 1986 workshop, including meals and lodging, was \$42 per teacher. Some districts pay additional tuition costs so that the teachers can receive undergraduate or graduate credit for the workshop.

The success of the workshop is indicated by comments received from the participating teachers. Many have written that the workshop is "the most worthwhile experience" they have had during their teaching careers. Many ask if they can return the next year, and every year there is a growing number of teachers who want to get away from civilization for a weekend—to become better teachers.

**Ann Seppenfield,**  
environmental education consultant, Kentucky  
Department of Education, Frankfort, Ky.

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## Learning Who Cares About Conservation Education

More than 850 science teachers in Florida care about conservation education. At their October 1986 convention in Tampa, Fla., they cared enough to take every one of the thousands of conservation education publications available at the exhibit booth of the Soil Conservation Service.

According to SCS district conservationist in Seffner, Fla., William Saalman, who helped to run the booth, SCS plans to be at the convention next year, too, but with even more teaching materials.

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Send present mailing label and  
new address including zip code to:

U.S. Department of Agriculture  
Soil Conservation Service  
P.O. Box 2890, Room 6202-S  
Washington, DC 20013-2890

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Penalty for private use, \$300

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## West Virginia Program Supports Learning About the Environment

The study of soil, water, air, plants, and animals and their interrelationships offers many personal rewards. In cooperation with local soil conservation districts (SCD's), the West Virginia Conservation Education Council is offering an added incentive for students to learn their environmental lessons well.

In 1984, the council, whose members represent education and resource conservation agencies in the State, developed a conservation education awards program for seventh grade science students. The Samara Conservation Education Program is named after the winged seed of the sugar maple tree, the State tree.

Through the program, students receive a test of 50 multiple choice questions on a variety of environmental topics such as life cycles of plants and animals, wildlife habitat, and soil erosion. Questions address specific learning objectives contained in the State's science curriculum. Questions cover the effects of soil erosion on other resources and the proper agency or unit of government to contact for help with solving an erosion problem. The test also covers protecting water quality and conserving wildlife.

The statewide program provides teachers with a list of conservation education materials such as films and curricula designed to complement the test and a list of resource people who are available to visit schools. Resource people can help the teachers and students with outdoor classrooms, wildlife habitat areas, and other projects.

School participation in the awards program is voluntary and students' test scores do not affect their science grades. The test is given in early spring. The three highest scoring students in each school receive a ribbon, and the school with the highest

average test score within the district receives a plaque. SCD's distribute the tests to schools, collect test scores, and distribute awards.

"Teachers say the test reinforces what they teach in their life science units and requires students to not only recall facts but also to use reasoning and interpretative skills," said Sally Shepherd, a supervisor for the Capitol SCD in Charleston, W. Va., and a member of the education and youth committee of the National Association of Conservation Districts.

**Steven B. Feese,**  
program coordinator, State Soil Conservation  
Committee, Charleston, W. Va

## Minnesota Hosts Ag-Stravaganza

A first grade teacher, blindfolded, stuck her hand into one of three buckets. Feeling the coarse texture, she triumphantly declared, "Sand! This is sand!" Nearby, an eighth grade teacher poured water into a jar filled with marbles and sand, observing the air spaces filling up. At another learning station, teachers were busy creating rainstorms with watering cans over pans filled with soil to compare the amount of soil washing off bare earth with the amount washing off earth protected by vegetation. At still another station, teachers plotted the origin of their breakfast food on a map of Minnesota, helping them to see important farmland areas.

These teachers are among the nearly 3,000 Minnesota teachers and resource personnel that have been introduced to Minnesota's Ag-Stravaganza—Protecting Agricultural Land program started in 1981.

The Governor's Rural Development Council (GRDC) sponsors the Ag-Stravaganza program to promote increased awareness of the need to conserve soil,

water, and other natural resources and protect important farmland areas. The program includes teacher training and curriculum guides for grades K-6 and 7-9, which have been used in almost every county in the State. More than 110 teacher workshops have been offered as in-service training or as part of a college course for credit in the past 3 years.

The success of Minnesota's Ag-Stravaganza project comes from a unique network of soil and water conservation districts (SWCD's), Soil Conservation Service, and Minnesota Environmental Education Board resource personnel who present teacher workshops throughout the State. Financial support for the program comes from private and corporate funding and through local SWCD's.

Both the elementary and junior high level curriculum guides contain hands-on activities, including role playing, designed to convey to students the need for soil conservation and agricultural land protection in Minnesota. Each guide contains more than 25 interdisciplinary lesson plans, student reference and activity sheets, a vocabulary section, and a resource guide.

Ag-Stravaganza is reaching beyond Minnesota State boundaries. Requests for the curriculum guides have come from more than 45 other States as well as Tanzania, Canada, the Philippines, and Australia.

Last year, Laura Noy, a project consultant for the GRDC on the K-6 Ag-Stravaganza curriculum, received an Excellence in Agricultural Conservation, Public Information, and Education Award from the American Farmland Trust in Washington, DC.

For more information about the Ag-Stravaganza project, contact: Minnesota's Ag-Stravaganza, 869 East Fifth Street, St. Paul, Minn. 55106; (612) 774-0500.

**Kathy McRae,**  
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St. Paul, Minn.